

E-015/M-89-398 APPROVING CONSERVATION IMPROVEMENT PROGRAM, REQUIRING  
ADDITIONAL FILINGS, AND REQUIRING NEW PROJECT FILING

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Darrel L. Peterson	Chair
Cynthia A. Kitlinski	Commissioner
Norma McKanna	Commissioner
Robert J. O'Keefe	Commissioner
Patrice Vick	Commissioner

In the Matter of the Implementation of an  
Energy Conservation Improvement Program  
for Minnesota Power Company

ISSUE DATE: February 5, 1990

DOCKET NO. E-015/M-89-398

ORDER APPROVING CONSERVATION  
IMPROVEMENT PROGRAM, REQUIRING  
ADDITIONAL FILINGS, AND REQUIRING  
NEW PROJECT FILING

PROCEDURAL HISTORY

On August 1, 1989 Minnesota Power Company (Minnesota Power or the Company) made its annual Conservation Improvement Program (CIP) filing under Minn. Stat. § 216B.241 (1988) and Minn. Rules, parts 7840.0200 *et seq.* On September 18, 1989 the Company filed an additional project proposal. In all, the Company proposed to fund seven projects during the 1990 CIP year, at a total CIP budget of \$705,236.

The Department of Public Service (the Department) filed detailed comments on the Company's proposal and recommended approval. The Department also recommended requiring the Company to file an additional project, similar to the proposed Industrial Conservation Pilot Project, to serve commercial and industrial customers not covered by the pilot project.

No other party commented on the Company's filings.

FINDINGS AND CONCLUSIONS

**I. Statutory Background**

The CIP statute, Minn. Stat. § 216B.241 (1988), requires all public utilities with annual operating revenues exceeding \$50,000,000 to make significant investments in and expenditures for energy

conservation improvements. CIP utilities are required to make annual filings describing proposed conservation projects for the coming year. Minn. Rules, part 7840.0500. The statute provides that such projects should generally cost less than it would cost the utility to produce or purchase the amount of energy saved. The statute also requires the Commission to give special consideration to the needs of renters and low income households when acting on CIP filings.

## **II. An Overview of the Program Proposed by the Company**

The Company's proposed program consists of seven projects, described below.

### **COMMUNITY ENERGY COUNCILS RESIDENTIAL WEATHERIZATION PROJECT --**

This project will be conducted in conjunction with local Community Energy Councils and will provide neighborhood energy workshops, residential energy audits, and weatherization materials to participants. It will operate in Little Falls, Fond du Lac, Duluth, Crosby, Deerwood, Stearns County, Park Rapids, Eveleth (Quad City), and Hibbing.

The Company expects the project to deliver 1,364 audits and has budgeted \$134,162 for the 1990 CIP year. It is estimated that 20% of the project's participants will be renters and low income persons.

**WEATHERIZATION TECHNICAL ASSISTANCE PROJECT --** In this project the Company lends local conservation organizations equipment they need to perform their weatherization and conservation activities. Currently, the Company owns and makes available five blower doors and two infrared scanners. The Company also provides the administrative support necessary to make an equipment lending program work.

Approximately 300 customers are expected to benefit from the project, of whom 33% are expected to be low income people. The Company has proposed a budget of \$1,480 for the CIP year.

**LOW INCOME ELECTRIC SPACE HEAT PROJECT --** This project will be conducted in conjunction with regional weatherization agencies and will provide grants of up to \$2,000 to weatherize homes and apartments with electric heating systems. Last year the project was limited to owner-occupied buildings. This year it has been expanded to include any residential building with electric heat. Landlords receiving grants under the project must refrain from raising rents to reflect the benefits of weatherization for a designated time period as a condition of participation.

The regional weatherization agencies serve only low income people, so all project participants will be low income. The Company expects 80% of project participants to be renters.

The Company's goal is to weatherize 140 residences. It has budgeted \$249,000 for the project.

**Residential Energy Service Project** -- This project will provide two types of energy audits to residential customers. One is the Home Energy Checkup, an on-site weatherization consultation and audit.

The other is EnerChek, which will be offered to customers who call to complain about high bills or to request information on controlling their electric utility costs. This audit will focus on electrical usage, and will consist of a walk-through audit, a customer interview, and a discussion of how a household's usage patterns affect its electric bill. The Company will also furnish participants with water heater blankets, water flow limiters, high efficiency fluorescent replacement lamps, and similar conservation materials.

The Company anticipates performing 655 Home Energy Checkups and 250 EnerChek audits on a budget of \$75,200. It is estimated that 20% of project participants will be renters or low income customers.

**Electric Energy Help Project** -- This project is designed to supplement the conservation services offered to low income households by regional weatherization agencies. The project will provide low income households whose monthly energy usage exceeds 600 kWh with an energy inventory, a written energy action plan, and conservation improvements to electric water heaters, refrigerators, and lighting equipment. The project will be administered by the regional weatherization agencies.

The project is expected to serve 600 low income households, of which 18% are expected to be rental households. The proposed budget is \$68,250.

**COMMERCIAL ENERGY SERVICE PROJECT** -- This project will provide two services: Business Energy Tune Ups and Energy Management Workshops.

The Business Energy Tune Up is targeted toward larger commercial customers and will provide an audit of a firm's electric energy usage and an analysis of its electric energy accounting procedures.

The energy management workshops will be presented in conjunction with local vocational-technical schools. The workshops will target industrial and commercial customers with energy-intensive operations. The Company also plans to develop two seminars in specialized areas, such as electro-technologies, power control systems, variable speed drive motors, or demand control systems. The Company plans to conduct 312 Business Energy Tune Ups and to hold nine workshops with an average attendance of 20. The proposed budget is \$82,384.

**Industrial Conservation Pilot Project** -- This project was approved by the Commission as a pilot project in July of 1989. Under this project the Company will reimburse Large Power customers for up to one-third the cost of specified cost-effective conservation improvements, subject to

Commission approval of each reimbursement.

The Company proposes a 1990 budget of \$50,000, plus \$5,000 for administrative expenses. The Company also proposed to spend in 1990 the \$55,000 approved for inclusion in last year's program, since none of that amount has yet been disbursed to Large Power customers.

**Non-Project Budget Items** -- The Company also requested authorization to include in its CIP tracker account three expense items not attributable to any particular CIP project: the \$8,700 cost of developing its 1990 CIP program, the \$29,000 in regulatory fees assessed for work on CIP dockets during the past year, and a \$2,060 expense for maintaining wind recorders at Duluth and Silver Bay, in preparation for a wind energy project at those sites. Although the wind energy project will not be a CIP project, it is required under related provisions of the CIP statute.

### **III. Commission Action**

**Reporting Requirements in Electric Energy Help Project** -- The Department recommended that the Commission require the Company to include, in its evaluation of the Electric Energy Help Project, the following information: the number of participants, the number of energy improvements installed, and the strengths and weaknesses observed in the project as it progressed. The Department also recommended obtaining the comments of the weatherization agencies on the project's strengths and weaknesses.

The Commission agrees this information would be helpful in evaluating the project and will require the Company to supply it. To ensure receipt of comments from the weatherization agencies, the Commission will require the Company to add submission of such comments as a term in its agreements with the agencies.

**Status Reports to be Required** -- The Commission will follow its usual practice of requiring the Company to file status reports on all projects on or before March 15, to allow prompt detection and resolution of any difficulties in implementing the 1990 program.

**Company to Continue Cost-Effectiveness Discussions with the Department** -- Like other utilities, Minnesota Power is engaged in ongoing discussions with the Department on methods of measuring the cost-effectiveness of CIP projects. This process should continue, and the Commission will so require.

**Company to Continue Discussions on Measuring Participation of Low Income and Rental Households in CIP Projects** -- The Department recommended requiring the Company to file a plan to monitor the number of low income and rental households participating in its CIP projects. The Company stated it analyzes low income and rental participation every time it evaluates any CIP project and that further monitoring was probably unnecessary.

The Commission understands the Department's concern. Recent amendments to the CIP statute, effective next CIP year, increase its emphasis on serving low income and rental households. New monitoring procedures may be necessary in light of this change. The Commission will therefore require the Company to continue its discussions with the Department on this issue.

**Company to File Commercial and Industrial Incentive Project** -- The Department recommended requiring the Company to file a project similar to the Industrial Conservation Pilot Project, but targeted toward the commercial and industrial customers who do not qualify for the pilot project. The Company responded that such a project would not meet prevailing cost-effectiveness standards.

The Commission believes such a project merits careful consideration, given the high potential for conservation in these customer classes and their high representation in Minnesota Power's load. The most effective way to examine the cost-effectiveness of such a project is for the Company to submit an actual project proposal, to allow both parties to analyze its cost-effectiveness, and to receive comments on their conclusions. The Commission will so order.

**Carryover of Unspent Amounts in Industrial Conservation Pilot Project to this CIP Year** -- The Company proposed to spend during 1990 the \$55,000 authorized for its Industrial Conservation Pilot Project in 1989. The Commission agrees that this is a reasonable approach.

The budget surplus did not result from lack of customer interest or from lack of diligence on the part of the Company. Establishing application, review, and disbursement procedures simply required more time than expected. The Company has received applications for the budgeted funds, however, and the applications and Company recommendations on them will come before the Commission shortly. Under these circumstances, it is reasonable to carry the funds over into the 1990 CIP year.

**Evaluation of the Program as a Whole** -- The Commission finds that the Conservation Improvement Program proposed by the Company, as modified herein, meets the requirements of the CIP statute and rules. It represents a significant investment and expenditure on the part of the Company, it gives due consideration to the needs of renters and low income ratepayers, and it meets prevailing standards of cost-effectiveness. Each consideration will be discussed in turn.

**Significant Investment and Expenditure** -- Minn. Rules, part 7840.1150 sets forth factors to be considered in determining whether a Company's CIP meets the statutory requirement of being a significant investment in and expenditure for conservation. The Company's CIP fares well when evaluated under these criteria.

Approximately 3,749 customers, 4% of all Minnesota Power customers, will receive conservation services under this year's program. The Company expects the program to result in short-term and long-term peak reductions of 653 kW and first-year energy savings of 3,475,320 kWh. The program's total budget constitutes 0.18% of the Company's 1988 gross revenues. Such monetary

amounts and participation levels imply the existence of the serious commitment to conservation contemplated by the CIP statute.

Furthermore, the program itself demonstrates a serious and comprehensive effort to deliver effective conservation services within the Company's service area. It is geographically balanced, providing services in urban and rural communities throughout the Company's service area. It serves diverse customer classes: residential, general service, large light and power, and large power. It provides a wide variety of services, from education to minor conservation improvements to major renovations.

Clearly, the Company's program will make a meaningful contribution to energy conservation in Minnesota. The Commission finds that the Company's CIP meets the "significant investment and expenditure" requirements of Minn. Stat. § 216B.241 (1988).

**Special Consideration for Rental and Low Income Households** -- The CIP statute requires that the Commission, when acting on CIP filings, "give special consideration to the needs of renters and low income families and individuals. . . ." Minn. Stat. § 216B.241, subd. 2 (1988). The Commission believes that Minnesota Power's CIP makes adequate provision for the special needs of renters and low income households.

Approximately 1,080 low income households and 333 rental households will receive services under the program. Two projects, the Low Income Electric Space Heat Project and the Electric Energy Help Project, are targeted exclusively toward low income people. Furthermore, the Company has expanded the Low Income Electric Space Heat Project to include rental dwellings, substantially increasing the number of eligible participants.

The Commission concludes that the Company's CIP meets the statutory requirement of demonstrating special consideration for the needs of rental and low income households.

**Cost Effectiveness Concerns** -- The CIP statute provides that the Commission may require a utility to fund an energy conservation improvement whenever the cost of the improvement will be less than the cost of producing or purchasing the amount of energy the improvement will save. The statute also provides, however, that the Commission shall require all utilities with annual operating revenues exceeding \$50,000,000 to make energy conservation improvements, whether such improvements can meet this cost-effectiveness test or not. Minn. Stat. § 216B.241, subd. 2 (1988).

Evaluating cost-effectiveness has proven to be one of the most challenging features of the CIP review process. The statutory test, "total cost to the utility less than the cost to the utility to produce or purchase an equivalent amount of new supply of energy," has sparked controversy, particularly over whether "total cost" does or does not include revenues lost due to energy saved.

The Commission has acted on the assumption that conservation and the development of cost-effectiveness methodologies should proceed simultaneously. This was intended to allow the

Commission to apply the best available knowledge on cost-effectiveness in acting on each year's CIP filings, while giving cost-effectiveness investigators actual data on the effectiveness of various conservation strategies. Utilities have therefore been operating Conservation Improvement Programs while working with the Department, Commission staff, and one another to refine useful cost-effectiveness models. This consultative process is now substantially complete.

Five cost-effectiveness tests have evolved from this process: the cost comparison test, the utility/rate impact test, the participant test, the revenue requirements test, and the nonparticipant test. The Commission believes these five tests provide a serviceable, comprehensive framework within which to examine the cost-effectiveness of proposed projects. Using more than one test realistically reflects the complexity of cost-effectiveness issues, and the necessity to examine cost-effectiveness from more than one perspective to gain an accurate understanding of the costs and benefits of any particular project.

The Company and the Department have subjected NSP's proposed projects to these tests and have found the approved projects within acceptable cost-effectiveness norms. The Commission agrees, and would add that even these five tests do not succeed in quantifying all the benefits likely to result from these projects.

As the Commission has noted in previous Orders, the energy savings low income ratepayers realize through participation in CIP projects often translate directly into higher quality of life through lower arrearages, less frequent need for Fuel Assistance, and fewer utility-related financial crises. Similarly, residential CIP participants report increased comfort levels and higher property values as important results of their participation. In the Matter of the Implementation of an Energy Conservation Program for Minnegasco, Inc. ORDER APPROVING CONSERVATION IMPROVEMENT PROGRAM AND REQUIRING ADDITIONAL FILINGS (September 19, 1988), at 10.

CIP projects also benefit society generally, in ways which are no less real for being unquantifiable. They clearly raise public and utility awareness of conservation issues. They have ecological benefits. They benefit the local economy by allowing the diversion of energy dollars for other purposes. They help create the potential for long term price stability by limiting the need for new supplies. They provide data on usage patterns and particular conservation strategies which will increase in importance as conservation moves up on the national, state, and local agendas.

The Commission concludes that the projects approved herein meet reasonable and prevailing cost-effectiveness standards.

### ORDER

1. The Commission approves the Company's CIP proposal, as modified herein. The approved plan consists of the following projects funded at the levels indicated:

Community Energy Councils Project

\$134,162



Weatherization Technical Assistance Project	1,480
Low Income Electric Space Heat Project	249,000
Residential Energy Service Project	75,200
Electric Energy Help Project	68,250
Commercial Energy Service Project	82,384
Industrial Conservation Pilot Project	55,000

2. The Company is authorized to include in its CIP tracker account the following items at the levels indicated:

CIP Program Development Expenses	\$ 8,700
Minnesota Regulatory Charges	29,000
Wind Resource Assessment Expenses	2,060

3. The Company is authorized to spend during the 1990 CIP year the \$55,000 approved for the Industrial Conservation Pilot Project in 1989.
4. Within 60 days of the date of this Order, the Company shall file a proposal for a new commercial and industrial incentive project, similar to the Industrial Conservation Pilot Project approved herein, but including commercial and industrial customers who are ineligible to participate in the pilot project.
5. The Department shall file comments on the Company's new project filing within 20 days of its filing.
6. In its evaluation of the Electric Energy Help Project the Company shall include the following information: the number of participants, the number of energy improvements installed, and the strengths and weaknesses the Company observed in the project as it progressed.
7. The Company shall require, in the terms of its agreements with the regional energy agencies administering the Electric Energy Help Project, that those agencies file comments with the Commission regarding the strengths and weaknesses of the project. These comments shall be filed at the same time as the Company's evaluation of the project.
8. The Company shall continue its discussions with the Department regarding effective methods for determining and monitoring the participation levels of low income and rental households in its CIP projects.
9. On March 15, 1990 the Company shall file status reports on all projects approved herein. Those reports shall contain at least the following information for each project: number of actual participants compared to the number of projected participants, identification of any barriers to participation and strategies for eliminating them, number of participants who are low income persons, number of participants who are renters, expenditures to date compared to approved total budget, and a complete discussion of any unforeseen difficulties encountered in administering the project.

10. The Company shall continue to work with the Department, the Commission, and other interested parties to refine the cost-effectiveness analyses and models used in evaluating CIP projects for electric utilities.
11. To the maximum extent practicable the Company shall ensure that all CIP participants have free choice of the devices, methods, materials, sellers, installers, and contractors used in making conservation improvements to their property.
12. The Company shall serve the Department and any other party requesting service with all filings made hereunder. The Department and any other commenting party shall file any comments on such filings within 15 days of service, unless otherwise provided herein.
13. The Company shall continue to record and report CIP expenses incurred and revenues collected in its CIP tracker account.
14. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Lee Larson  
Acting Executive Secretary

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